

ABSTRACT OF THE DISCLOSURE

An apparatus generally having a first circuit, a second circuit and a third circuit is disclosed. The first circuit may be configured to generate a plurality of difference values by calculating an absolute difference between each pixel from a
5 current block and a corresponding pixel from a reference block substantially simultaneously. The second circuit may be configured to generate a plurality of sum values by adding the difference values. The third circuit may be configured to generate at least one motion vector in response to the sum values.